

LEAD AND HEALTH EDUCATION PLAN

HERCULANEUM, MISSOURI

March 2003

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Superfund

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## **A. Distribution List**

EPA – Region 7:	Bruce Morrison, Project Manager
MDHSS	Gale Carlson
MDNR - Superfund	Dave Mosby, Project Manager
ATSDR	Denise Jordan-Izaguirre
The Doe Run Company	Aaron Miller, Project Manager

## **B. Project/Task Organization**

The individuals directly involved with this project and their specific responsibilities are outlined below.

Bruce Morrison, EPA Region 7 Project Officer/ Manager: Review project progress. Ensure QAPP implementation. Coordinate data review, Agency public relations, report project progress to MDNR, health agencies and community.

Dave Mosby, MDNR Project Manager: Review project progress. Ensure QAPP implementation. Coordinate details of data review, project progress and resources with the state and county health departments.

Aaron Miller, The Doe Run Company's Project Manager: Responsible for the implementation of the Community Health Education Plan for the Herculaneum Lead Smelter Superfund Site.

## **C. Background**

The Doe Run Company and its predecessor companies have, since 1892, continuously operated a lead smelter in Herculaneum, Missouri. Over the years, smelter emissions and releases have resulted in extensive lead contamination of the soil, home interiors, streets, and other exterior surfaces, in Herculaneum.

Previous Herculaneum blood lead data collected as far back as 1975 has consistently identified significant percentages of children under 6 years of age with elevated blood lead levels exceeding the current Centers for Disease Control and Prevention (CDC) level of concern of 10 ug/dl. Blood lead screening data collected from Herculaneum residents in 2001 indicated 28% of children under six years old had elevated blood leads exceeding 10 ug/dl.

In 2001, State and Federal Regulators documented facility operating practices that resulted in the release and spread of copious quantities of lead bearing materials throughout the streets of Herculaneum and the contamination of yard soils. Over 75% of yards sampled within 1 mile of the facility were found to contain lead concentrations exceeding 400 ppm. Until 2002, the smelter's air emissions had exceeded the National Ambient Air Quality Standard for lead. Under Administrative Orders with State and Federal Regulators, Doe Run initiated response actions that consisted of yard soil

replacements, home interior cleaning, temporary relocations for families with children up to 72 months of age, voluntary home purchases of residents living within 3/8 mile of the facility, and modifications to their operating practices to reduce the tracking of lead-bearing materials from the facility.

As part of the response actions that were initiated in 2001, the Missouri Department of Health and Senior Services (DHSS) and the Agency for Toxic Substances and Disease Registry (ATSDR) began a public outreach program to inform Herculaneum citizens about the risks of exposure to lead in their community and appropriate actions to take on a personal level to reduce the risk of exposure to lead. ATSDR and DHSS have provided health consultations, exposure investigations, door to door literature drops, a Needs Assessment, and have attended monthly community meetings to address citizen concerns. Special blood lead testing events were provided in cooperation with the Jefferson County Health Department (JCHD). The JCHD continues to offer free blood lead testing to all residents in Herculaneum. In addition, JCHD provides environmental lead assessments of homes where children with elevated blood lead levels reside in accordance with DHSS protocols.

#### **D. Project/Task Description**

The tasks to be performed under this plan fall into two broad categories:

Public Meetings and Availability Sessions  
Distribution of Health Education Literature

##### **1. Public Meetings and Availability Sessions**

At a minimum, Doe Run will hold a public meeting/availability session once per year to identify the sources of lead in Herculaneum, and explain the measures that should be taken to reduce potential exposure to lead in the community. The meeting(s) will be well advertised at least one month prior to the meeting. Advertising will include, but not be limited to newspaper announcements, radio broadcasts, direct mailing(s) to Herculaneum residents, and announcements at Community Advisory Group (CAG) meetings. EPA should be notified of public health education meetings 60 days prior to the meetings.

All of the EPA-approved health education literature identified in this plan will be provided to each citizen attending a public meeting. No other health education/health opinion literature will be provided to citizens at public meetings unless prior approval is granted by EPA. A representative from DHSS or ATSDR must be present at all public health education meetings being sponsored by Doe Run.

##### **2. Distribution of Literature**

The following is a list of literature that will be available to residents, unless EPA, MDHSS or MDNR notifies Doe Run in writing to add or remove a publication from the

approved list. As Doe Run becomes aware of other literature, they will request that the agencies review for approval prior to adding it to the distribution list.

*DHSS #863 What Everyone Should Know About Lead Poisoning, Aug 1999*

*DHSS Ways to Reduce Your Child's Exposure to Lead, Herculaneum, MO, Feb 2003*

In order to increase the likelihood of residents receiving the literature, Doe Run will use multiple methods to distribute the literature.

- At least one publication of each document will be available for all residents attending the annual public meeting.
- A supply of literature will be maintained at Herculaneum City Hall and Jefferson County Health Department for residents and city employees.
- New residents will receive literature about lead at the time of moving into Herculaneum through the city inspector, city water clerk or other city official.
- Literature will be made available to the professionals, including Jefferson County physicians, involved with collecting blood for any blood lead study/screening. Health education literature should also be provided to families (while at the hospital) with newborns at the Jefferson Memorial Hospital who reside in Herculaneum.
- Every year, a one-time mass mailing campaign will be conducted between the months of March through May. A letter, that has been reviewed and approved for content by the agencies, and copies of all required literature will be sent by Doe Run to all residents of Herculaneum.